Honeywell

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# Limit and Enclosed Switches

## Rotary Actuated Switches

**Side Rotary** **Top Rotary**

Order guides below and on page A35 provide specification and pricing information for side and top rotary switches.

Plug-in body style catalog listings consist of the complete plug-in base receptacle.

Levers are ordered separately. See pages A37-A39 for lever selection.

For rapid response – off the shelf service, all **bold face** listings are normally stocked items.

**For low temperature, high temperature or preleading see page A42.**

**ASSEMBLED CONDITIONS**

Catalog listings in order guide below are factory assembled with:

- Shaft of side rotary heads facing front of switch (label side).
- Head adjusted for both clockwise and counterclockwise operation.
- Light on indicator versions wired to N.O. circuit.

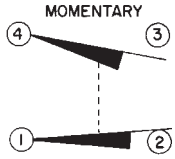
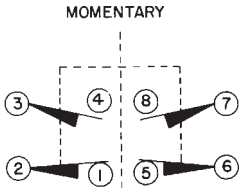
Refer to facing page to specify modifications to these assembled conditions.

**PRELEADED OR CONNECTORIZED VERSIONS**

Refer to page A42.

Limit/Enclosed

**ORDER GUIDE** (Momentary action. UL listed, CSA certified, CE approved. Levers not included. Order separately pages A37-A39.)

| Circuitry | Electrical Rating | Body** Style | Catalog Listings Side Rotary: Standard | Side Rotary: Low Differential | Side Rotary: 5° Pretravel | Side Rotary: Low Torque | Side Rotary: Low Differential Low Torque | Top Rotary: High Overtravel |
|---|---|---|---|---|---|---|---|---|
| Silver contacts | A | Plug-in ½″ Conduit | **LSA1A** | **LSP1A** | LSU1A | **LSR1A** | **LSH1A** | **LSB1A** |
| Gold cross point contacts | C | Plug-in ½″ Conduit | **LSA1J** | | LSU1J | — | — | LSB1J |
| Gold plated contacts | C | | LSA1E | LSP1E | — | LSR1E | LSH1E | — |
| Silver contacts | A* | 120 V Ind. lite Plug-In* ½″ Conduit | **LSA5A** | **LSP5A** | LSU5A | LSR5A | **LSH5A** | LSB5A |
| | A* | 240 V Ind. lite Plug-In ½″ Conduit | LSA8A | LSP8A | LSU8A | LSR8A | LSH8A | LSB8A |
| MOMENTARY  | A* | 24 V LED lite 1.5mA max. Auto polarity Plug-in ½″ Conduit | LSA9A | LSP9A | LSU9A | LSR9A | LSH9A | LSB9A |
| SPDT Double Break | A | Non plug-in ½″ Conduit | **LSA3K** | **LSP3K** | LSU3K | **LSR3K** | **LSH3K** | **LSB3K** |
| Silver contacts | B | Plug-in ¾″ Conduit | **LSA2B** | **LSP2B** | LSU2B | LSR2B | **LSH2B** | **LSB2B** |
| MOMENTARY  | B | Plug-in ½″ Conduit | LSA6B | LSP6B | LSU6B | LSR6B | LSH6B | LSB6B |
| | B | 120 V Ind. lite Plug-in ¾″ Conduit | LSA2R | LSP2R | LSU2R | LSR2R | LSH2R | LSB2R |
| | B | Non plug-in ¾″ Conduit | **LSA4L** | **LSP4L** | LSU4L | LSR4L | LSH4L | LSB4L |
| DPDT Double Break | B | Non plug-in ½″ Conduit | LSA7L | LSP7L | LSU7L | LSR7L | LSH7L | LSB7L |
| SPNC Direct Acting | D | Non plug-in ½″ Conduit | LSA3N | | | LSR3N | | LSB3N |

*Use at voltage indicated for light. Wired to N.O. circuit. Upper temperature limit for lighted units is 200°F (93°C). **Plug-in listings include base receptacle.

**OPERATING CHARACTERISTICS**

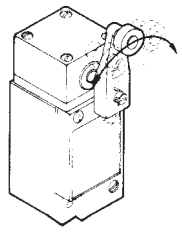
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Pretravel (degrees max.) | | 15 | 9 | 5 | 15 | 9 | 25 |
| Differential Travel (degrees max.) | SPDT | 5 | 3 | 3 | 5 | 3 | 10 |
| | DPDT | 7 | 4 | 4 | 7 | 4 | 12 |
| Overtravel (degrees min.) | | 60 | 66 | 70 | 60 | 66 | 110 |
| Operating Torque (max.) NM = Newton meters | | 0,45 Nm 4 in. lbs. | 0,45 Nm 4 in. lbs. | 0,45 Nm 4 in. lbs. | 0,19 Nm 1.7 in. lbs. | 0,19 Nm 1.7 in. lbs. | 0,28 Nm 2.5 in. lbs. |
| Operating Temperature Range*** | | 10°F to 250°F −12° to 121°C | | | 30°F to 250°F −1° to 121°C | | |

***Completely fluorocarbon-sealed switches are preferred for use in temperatures above 200°F (93°C). Refer to page A42.

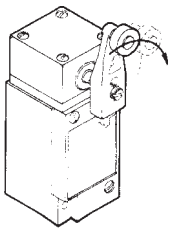
## Rotary Actuated Switches

### ACTUATION DIRECTION

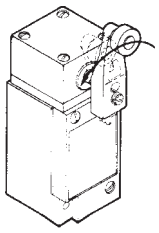
(Drawings apply to listings on facing page only).



CW & CCW
(Normal)



CW
Mod. 1

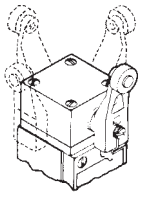


CCW
Mod. 2

### HEAD ORIENTATION

Mod. 5

Mod. 3



Mod. 4

Front
(Normal)

### ASSEMBLY MODIFICATIONS

**How to order**

Momentary action rotary switches can be furnished in other than the normal assembled conditions described on the facing page. To specify modifications, add the number(s) shown below to the catalog listings. Prices are the same as their counterparts shown in the order guide.

Modification number suffixes are:

- **1** Clockwise operation only
- **2** Counterclockwise operation only
- **3** Shaft to right of switch front
- **4** Shaft to left of switch front
- **5** Shaft to back of switch
- **7** Indicator light wired to N.C. circuit

Examples:

Catalog Listing LSA1A**23** is an LSA1A switch adjusted for counterclockwise operation only. The operating shaft is to the right side of the switch when viewing it from the front (label side). No lever.

Catalog Listing LSA8A**7** is an LSA8A switch with the 240 volt indicator light wired to the N.C. circuit. No lever.

Switches with assembly modifications are not normally stocked and may extend delivery leadtimes.

### ELECTRICAL RATINGS

10 amps continuous carry (except for electrical rating ''C''). Circuits on any one pole must be the same polarity.

**AC Volts**

Pilot duty: 600 VAC, 720VA

| Electical Rating | Circuitry | VAC | Amps at 0.35 Power Factor Make | Break |
|---|---|---|---|---|
| A* | Single-Pole Double-Throw | 120<br>240<br>480<br>600 | 60<br>30<br>15<br>12 | 6<br>3<br>1.5<br>1.2 |
| B | Double-Pole Double-Throw | 120<br>240<br>480<br>600 | 30<br>15<br>7.5<br>6 | 3<br>1.5<br>0.75<br>0.60 |
| D | Single-Pole Single-Throw Normally Closed | 120<br>240<br>480<br>600 | 60<br>30<br>15<br>12 | 6<br>3<br>1.5<br>1.2 |
| C** | Single-Pole Double-Throw | 250 VAC or 60 VDC, .050 amp max. | | |

**DC Volts**

Pilot duty: 240 VDC, 30 watts

| Electrical Rating | Circuitry | VDC | Make and Break Amps Inductive | Resistive |
|---|---|---|---|---|
| A* | Single-Pole Double-Throw | 120<br>240 | 0.25<br>0.15 | 0.8<br>0.4 |
| B | Double-Pole Double-Throw | 120<br>240 | 0.25<br>0.15 | 0.8<br>0.4 |
| D | Single-Pole Single-Throw Normally Closed | 30<br>120 | 4.3<br>1.1 | 4.3<br>1.1 |
| C** | Single-Pole Double-Throw | 250 VAC or 60 VDC, .050 amp max. | | |

*For switches with indicator light, use only at voltage stated for indicator light.

**These switches have either gold plated or gold cross point contacts. Cross point contacts improve high reliability of contact make when particle contamination is a problem or low energy loads must be carried.

### LEVERS

Levers for rotary actuated switches are normally ordered as separate catalog listings. They also may be ordered by including a suffix to the switch catalog listing and adding the lever price. See pages A34-A39.

### SWITCHES FOR SPECIAL APPLICATIONS

HDLS limit switches for special application needs are described on pages A42 and A43. They include: manifold mount, low temperature, complete fluorocarbon-sealed, gravity return, extra low torque and 20 Amp switches.

Adapter plates for interchanging HDLS with LS/200LS limit switches are described on page A49.

## Rotary Actuated Switches

### ADDITIONAL CIRCUITRY/ACTION OPTIONS

### ASSEMBLY MODIFICATIONS

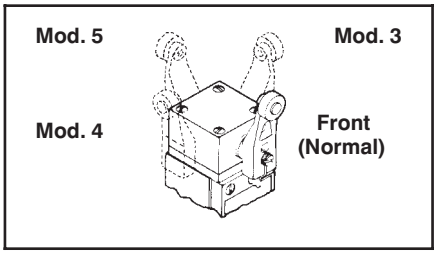
Switches in the order guide, below, have the operating shaft facing front. If another orientation is desired, add a number from the drawing to the catalog listing.

To specify the indicator light wired to the N.C. circuit, add **7** to the catalog listing.

Example:
Catalog Listing LSN5A**37** is an LSN5A switch with the shaft facing right and the indicator light wired to the N.C. circuit.

### HEAD ORIENTATION

(Drawing applies to this page only.)



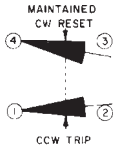
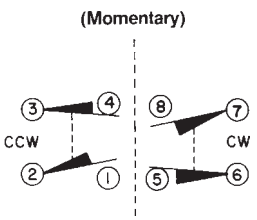
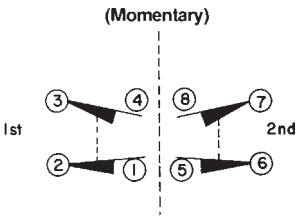
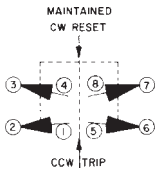

**Lever ordering information is shown on pages A36-A39.**



### ORDER GUIDE

Maintained, center neutral, or sequential action. UL listed, CSA certified. Levers not included (see pages A36-A39).

**For low temperature, all Viton or preleaded versions see page A42.**

| Circuitry | Elec. Rating Page A23 | Body** Style | Maintained† 360° Alternate Action | Maintained† 2 Position Standard | Center Neutral (Pole 1 operates CCW Pole 2 operates CW) | Sequential (Pole 1 operates before Pole 2, either CW or CCW or both) |
|---|---|---|---|---|---|---|
|  SPDT Double Break Maintained | A | Plug-in ½″ Conduit | LSQ300 | **LSN1A** |  SPDT Double Break each direction Electrical rating B |  (2) SPDT Double Break with 10° between operation Electrical rating B |
| | A* | 120V Ind. Lite Plug-in ½″ Conduit | | **LSN5A** | | |
| | A* | 240V Ind. Lite Plug-in ½″ Conduit | | LSN8A | | |
| | A | Non plug-in ½″ Conduit | LSQ310 | **LSN3K** | | |
|  DPDT Double Break Maintained | B | Plug-in ¾″ Conduit | | **LSN2B** | **LSM2D** | **LSL2C** |
| | B | Plug-in ½″ Conduit | | LSN6B | LSM6D | LSL6C |
| | B | Non plug-in ¾″ Conduit | LSQ320 | LSN4L | **LSM4N** | **LSL4M** |
| | B | Non plug-in ½″ Conduit | | LSN7L | **LSM7N** | **LSL7M** |
| SP Normally Closed Direct Acting | D | Non plug-in ½″ Conduit | | LSN3N | | |

* Use at voltage indicated for light. Wired to N.O. circuit.
Upper temperature for lighted units is 200°F (93°C).

** Plug-in listings include base receptacle.

† Total travel is approximately 80° max. Maintained contact switch normally used with LSZ53 yoke actuator.

### OPERATING CHARACTERISTICS

| | | | | |
|---|---|---|---|---|
| Pretravel (degrees max.) | SPDT | 65 | Not Applicable | Not Applicable |
| Note: Mechanical trip before electrical trip | DPDT | 65 | 18 | 1st Pole 15<br>2nd Pole 10 additional (max.) |
| Differential Travel (degrees max.) | SPDT | 40 | Not Applicable | Not Applicable |
| | DPDT | 40 | 10 | For each pole — 5 degrees |
| Overtravel (degrees min.) | | 20 | 57 | 48 |
| Operating Torque (max.) Nm = Newton meters | | 0,45 Nm<br>4 in. lbs. | 0,45<br>4 in. lbs. | 0,45<br>4 in. lbs. |
| Operating Temperature Range*** | | 30°F to 250°F<br>–1 to 121°C | | 10°F to 250°F<br>–12 to 121°C |

*** Completely fluorocarbon-sealed switches are preferred for temperatures above 200°F (93°C). Refer to page A42.

# Limit and Enclosed Switches

## Levers for Rotary Actuated Switches

Levers for use with side or top rotary actuated switches are available in a wide choice of sizes and materials, as shown in the order guides on the following pages. Rollers may be on either side of the lever to best match the external actuating mechanism. They permit a wide range of cam tracking possibilities (see drawings below).

**LSZ51** standard rollers and **LSZ55** offset roller levers have a fixed 1.5 inch (38,1 mm) radius.

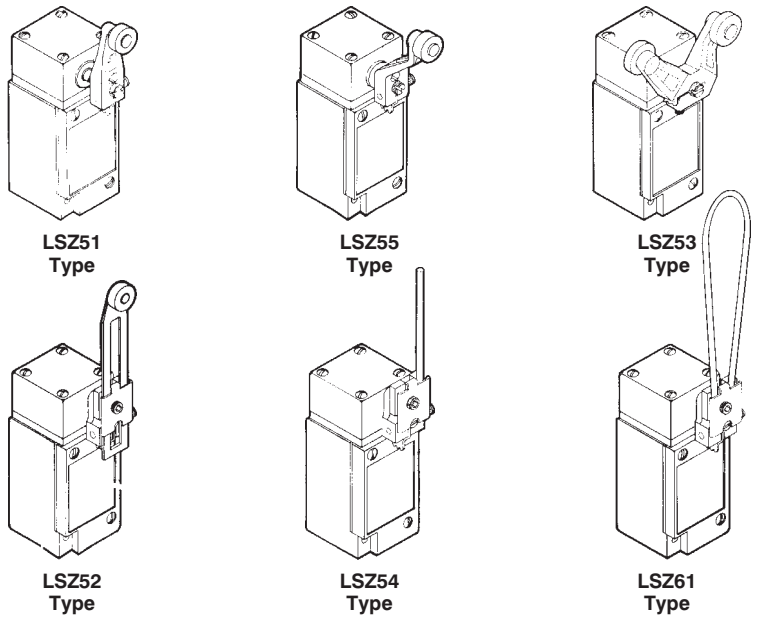
**LSZ53** yoke roller levers are used with side rotary maintained switches, where a reciprocating actuator operates the switch in one direction and reverses it when moving in the other direction.

**LSZ52** adjustable length roller levers are universally adaptable to many application needs.

**LSZ54** rod levers may be formed by the user. The hub permits adjusting of lever length. Also available in flexible versions.

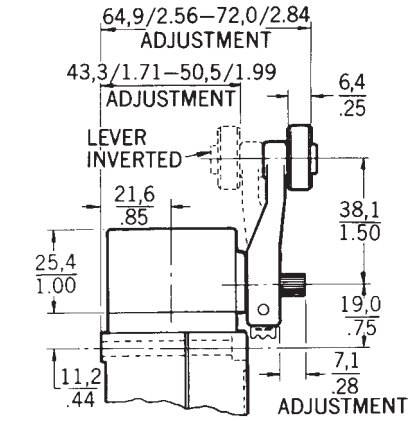
**LSZ61** is an adjustable loop lever.

For lever order guides, refer to the following pages.

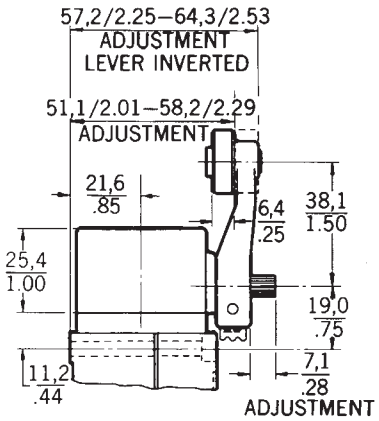



**CAM TRACKING**

**LSZ51 TYPE LEVERS**

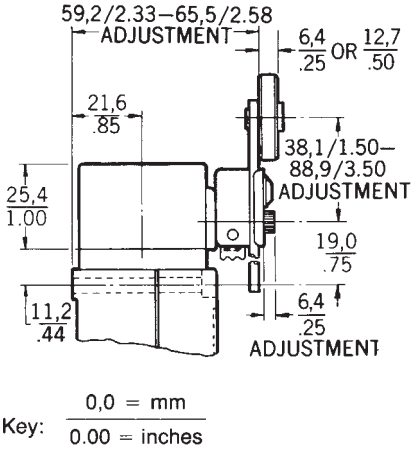



Open mounted roller



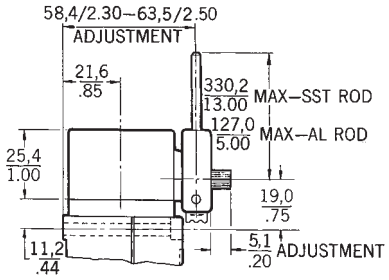

Close mounted roller

**LSZ52 TYPE LEVER**

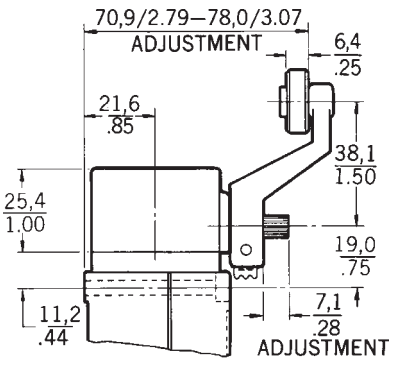



Key: 0,0 = mm / 0.00 = inches

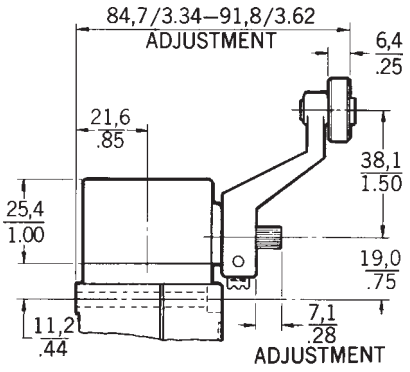
**LSZ54 TYPE LEVER**




**LSZ55 TYPE LEVERS**




Open mounted roller



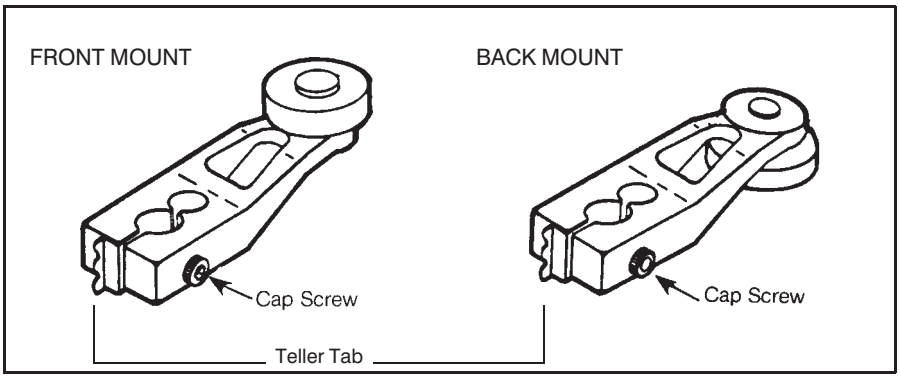

Close mounted roller

NOTE: Shaft dia. is .29 in.

# Limit and Enclosed Switches

## Levers for Rotary Actuated Switches

Rollers may be mounted on the front or back side of the lever. (See below).




Levers shown in the order guides are furnished with cap screws which accommodate a 9/64-inch allen wrench.

Teller tab assures proper torque. When it cannot be moved, the lever is tight enough to prevent slippage.



**ORDER GUIDE**

| Type | Radius (in.) | Roller Mounted On This Side Of Lever | Dia. in. | Width in. | Material | Catalog Listings |
|---|---|---|---|---|---|---|
| LSZ51 Series | 1.5 | Front | .75 | .25 | Nylon | **LSZ51A** |
| Std. | 1.5 | Front | .75 | .25 | Steel | **LSZ51B** |
| Roller | 1.5 | Back | .75 | .25 | Nylon | **LSZ51C** |
| Lever | 1.5 | Back | .75 | .25 | Steel | **LSZ51D** |
| | 1.5 | Front | 1.0 | .50 | Nylon | **LSZ51F** |
| | 1.5 | Front | 1.5 | .25 | Nylon | **LSZ51G** |
| | 1.5 | Back | 1.0 | .50 | Nylon | **LSZ51J** |
| | 1.5 | Back | .75 | .25 | Ball Bearing | **LSZ51L** |
| | 1.5 | Back | .75 | 1.30 | Nylon | **LSZ51M** |
| | 1.5 | Back | .75 | .375 | Stainless | **LSZ51T** |
| | 1.5 | Front | .75 | .50 | Nylon | **LSZ51P** |
| | 1.5 | Front | 1.59 | .25 | Nylon | **LSZ51R** |
| | 1.5 | — | — | — | Less Roller | **LSZ51** |
| LSZ53 Series | 1.5 | Front-Back | .75 | .25 | Nylon | **LSZ53A** |
| Yoke | 1.5 | Front-Back | .75 | .25 | Steel | **LSZ53B** |
| | 1.5 | Front-Front | .75 | .25 | Steel | **LSZ53D** |
| | 1.5 | Back-Front | .75 | .25 | Nylon | **LSZ53E** |
| | 1.5 | Back-Back | .75 | .25 | Nylon | **LSZ53S** |
| | 1.5 | Back-Back | .75 | .25 | Steel | **LSZ53P** |
| | 1.5 | Back-Front | .75 | .25 | Steel | **LSZ53U** |
| | 1.5 | Back-Front | .75 | 1.25 | Nylon | **LSZ53M** |
| | 1.5 | — | — | — | Less Rollers | **LSZ53** |
| Back view of LSZ53E | | | | | | |
| LSZ55 Series | 1.5 | — | — | — | Less Roller | **LSZ55** |
| Offset | 1.5 | Back | .75 | .25 | Nylon | **LSZ55A** |
| | 1.5 | Back | .75 | .25 | Steel | **LSZ55B** |
| | 1.5 | Front | .75 | .25 | Nylon | **LSZ55C** |
| | 1.5 | Front | .75 | .25 | Steel | **LSZ55D** |
| | 1.5 | Front | .75 | .50 | Nylon | **LSZ55E** |
| | 1.5 | Front | 1.5 | .25 | Nylon | **LSZ55K** |
| | 1.5 | Front | 1.0 | .50 | Nylon | **LSZ55F** |
| LSZ69 Series* | | — | 6.0 | — | Stainless (spokes replaceable) | **LSZ69CA** |

*For use with LSQ300 Series. Hub is aluminum. See page A59 for dimensions.

# Limit and Enclosed Switches

## Levers for Rotary Actuated Switches

**METRIC CONVERSION**

| | | | |
|---|---|---|---|
| .25 | in. | = | 6,35 mm |
| .5 | in. | = | 12,7 mm |
| .625 | in. | = | 15,9 mm |
| .75 | in. | = | 19,1 mm |
| 1.0 | in. | = | 25,4 mm |
| 1.5 | in. | = | 38,1 mm |
| 2.0 | in. | = | 50,8 mm |
| 2.5 | in. | = | 63,5 mm |
| 3.0 | in. | = | 76,2 mm |
| 4.8 | in. | = | 122 mm |
| 5.0 | in. | = | 127 mm |
| 6.0 | in. | = | 152 mm |
| 12.0 | in. | = | 305 mm |

**LOW TORQUE APPLICATION CONSIDERATION**

When heavier levers (such as LSZ52 series and LSZ54 series, below), are used with low torque LSH, LSR, LSS and LST switches, it is desirable to mount the switch with the lever down. In this way, gravity will assist in restoring levers to the free position.

Conversely, when these switches are mounted with the lever upright, gravity tends to work to prevent lever return after switching actuation. By counterbalancing the lever or adding an auxiliary extension spring, this problem may be overcome. Contact the 800 number for application assistance.

**ORDER GUIDE**

| Type | Radius (in.) | Roller Mounted On This Side Of Lever | Dia. in. | Width in. | Material | Catalog Listings |
|---|---|---|---|---|---|---|
| LSZ52 Series | 1.5-3.5 | Back | .75 | .25 | Nylon | **LSZ52A** |
| Adjustable | 1.5-3.5 | Back | .75 | .25 | Steel | **LSZ52B** |
| Radius | 1.5-3.5 | Front | .75 | .25 | Nylon | **LSZ52C** |
| | 1.5-3.5 | Front | .75 | .25 | Steel | **LSZ52D** |
| | 1.5-3.5 | Front | .75 | 1.30 | Nylon | **LSZ52E** |
| | 1.5-3.5 | Front | 1.0 | .5 | Nylon | **LSZ52J** |
| | 1.5-3.5 | Front | 1.5 | .25 | Nylon | **LSZ52K** |
| | 1.5-3.5 | Front | .75 | .25 | Ball Bearing | **LSZ52L** |
| | 1.5-3.5 | Front | 2.0 | .25 | Nylon | **LSZ52M** |
| | 1.5-3.5 | Front | .75 | .5 | Nylon | **LSZ52N** |
| | | | | | Less Roller | **LSZ52** |
| | | | | | Hub Only | **LSZ54** |
| LSZ68 Series | 12.0 | — | .25 | — | Delrin Rod w/Spring | **LSZ68** |
| Spring/Rod | 16.0 | — | .25 | — | Delrin Rod w/Spring | **LSZ617** |
| LSZ54 Series | 5.5 | — | — | — | Aluminum | **LSZ54M** |
| Rod | 13.0 | — | — | — | Stainless Steel | **LSZ54N** |
| | 20.0 | — | — | — | Delrin Rod | **LSZ54P** |
| | 12.0 | — | — | — | Spring Wire | **LSZ54R** |
| | 4.8 | — | — | — | Flexible Cable | **LSZ54V*** |
| | | | | | Hub Only | **LSZ54** |
| LSZ61 Series Flexible Loop | | 6″ Flexible Loop/Cap Screw<br>9.5″ Flexible Loop/Cap Screw<br><br>(measured from center line of shaft hole to tip of actuator) | | | Nylatron<br><br>Hub Only | **LSZ61**<br>LSZ618<br>LSZ54 |
| LSZ60 Series One Way Roller Lever | | Front | .75 | .25 | Nylon | LSZ60A |
| | | Front | .75 | .25 | Steel | LSZ60B |

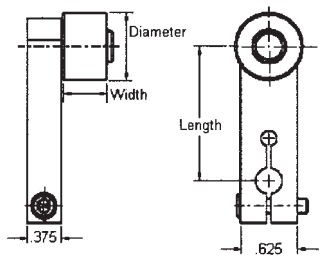
See page A60 for dimensions

*Hub not available separately.

# Limit and Enclosed Switches

## Levers for Rotary Actuated Switches

### FIXED LENGTH LEVERS ORDER GUIDE

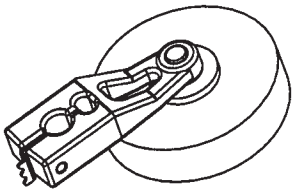
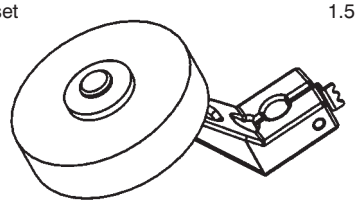
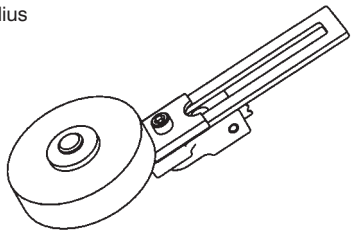
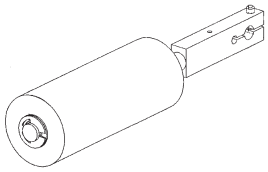
| Fixed Length Levers LSZ65 Series | Lever Length (in.) | Lever Listing | For a complete listing add your choice of roller suffix | | | |
|---|---|---|---|---|---|---|
| | | | Roller Suffix | Dia. in. | Width in. | Material |
|   | .88 | LSZ65A___ | A | .75 | .25 | Nylon |
| | 1.38 | LSZ65B___ | B | .75 | .25 | Steel |
| | 1.25 | LSZ65L___ | | | | |
| | 1.50 | LSZ65C___ | C | .75 | .50 | Nylon |
| | 1.75 | LSZ65D___ | D | .75 | 1.30 | Nylon |
| | 2.00 | LSZ65E___ | E | 1.00 | .50 | Nylon |
| | 2.50 | LSZ65F___ | F | 1.50 | .25 | Nylon |
| | 3.00 | LSZ65G___ | | | | |
| | 4.00 | LSZ65H___ | | | | |
| | 5.00 | LSZ65J___ | | | | |
| | 6.00 | LSZ65K___ | | | | |

Example:
LSZ65AB is a .88″ long lever with a steel .75″ diameter, .25″ wide roller.

### RUBBER ROLLER LEVERS

Ideal for elevator or conveyor applications requiring quiet operation or protection of delicate surfaces.

### ORDER GUIDE

| Type | Radius (in.) | Roller Mounted On This Side Of Lever | Dia. in. | Width in. | Material | Catalog Listing |
|---|---|---|---|---|---|---|
| LSZ51 Series Std. Roller Lever  | 1.5 | Front | 1.6 | .5 | Rubber | LSZ51W |
| | 1.5 | Front | 2.0 | .5 | Rubber | LSZ51Y |
| LSZ55 Series Offset  | 1.5 | Front | 1.6 | .50 | Rubber | LSZ55W |
| | 1.5 | Front | 2.0 | .50 | Rubber | LSZ55Y |
| LSZ52 Series Adjustable Radius  | 1.5 to 3.5 | Front | 1.6 | .50 | Rubber | LSZ52W |
| | 1.5 to 3.5 | Front | 2.0 | .50 | Rubber | LSZ52Y |
| LSZ67 Series Conveyor Roller  | — | — | 1.5 | 3.8 | Plastic | LSZ67AA |

# Limit and Enclosed Switches

## Plunger Actuated Switches

**ASSEMBLED CONDITIONS**

Catalog listings in order guide below are factory assembled with:

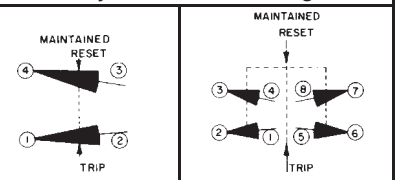
- Side plungers facing front (label side) of switch. Rollers on side plungers are in horizontal position.
- Roller on top plungers are parallel to mounting surface.
- Lights on indicator versions are wired to N.O. circuit.

Refer to facing page to specify modifications to these assembled conditions.

**For low temperature, high temperature or preleaded versions see page A42.**

**ORDER GUIDE**
Momentary action, except for maintained contact LSG version. UL listed, CSA certified.

**Circuitry For Maintained Plunger**




**SPDT Double Break** (Electrical rating **A**) | **DPDT Double Break** (Electrical rating **B**)

Circuits on any one pole must be the same polarity.

**Catalog listings in this chart are complete switches.**

| Circuitry | Elec. Rating Page A34 | Body** Style | Catalog Listings: Top Plungers — Plain | Top Plungers — Roller | Top Plungers — Adjustable | Side Plungers — Plain | Side Plungers — Roller | Side Plungers — Adjustable | Maintained (Circuitry Shown Above) |
|---|---|---|---|---|---|---|---|---|---|
| Silver contacts | A | Plug-in ½″ Conduit | **LSC1A** | **LSD1A** | **LSV1A** | **LSE1A** | **LSF1A** | **LSW1A** | LSG1A |
| Gold cross pt. | C | Plug-in ½″ Conduit | LSC1J | LSD1J | LSV1J | LSE1J | LSF1J | LSW1J | — |
| Gold plated | C | | — | LSD1E | — | — | LSF1E | LSW1E | — |
| Silver contacts | A* | 120 V. Ind. Lite Plug-in ½″ Conduit* | **LSC5A** | **LSD5A** | LSV5A | LSE5A | LSF5A | LSW5A | LSG5A |
| | A* | 240 V. Ind. Lite Plug-in ½″ Conduit* | LSC8A | LSD8A | LSV8A | LSE8A | LSF8A | LSW8A | LSG8A |
| SPDT Double Break | A | Non plug-in ½″ Conduit | **LSC3K** | **LSD3K** | **LSV3K** | **LSE3K** | **LSF3K** | **LSW3K** | LSG3K |
| Silver contacts | B | Plug-in ¾″ Conduit | LSC2B | **LSD2B** | LSV2B | LSE2B | LSF2B | LSW2B | LSG2B |
| | B | 120 V Ind. Lite Plug-in ¾″ Conduit | LSC2R | LSD2R | LSV2R | LSE2R | LSF2R | LSW2R | LSG2R |
| | B | Plug-in ½″ Conduit | LSC6B | **LSD6B** | LSV6B | LSE6B | LSF6B | LSW6B | LSG6B |
| | B | Non plug-in ¾″ Conduit | LSC4L | LSD4L | LSV4L | LSE4L | LSF4L | LSW4L | LSG4L |
| DPDT Double Break | B | Non plug-in ½″ Conduit | LSC7L | LSD7L | LSV7L | LSE7L | LSF7L | LSW7L | LSG7L |
| SPNC Direct Acting | D | Non plug-in ½″ Conduit | — | — | — | LSE3N | LSF3N | LSW3N | LSG3N |

*Use at voltage indicated for light. Upper operating temperature limit for lighted units is 200°F. Wired to N.O. circuit. **Plug-in listings include base receptacle.

**OPERATING CHARACTERISTICS**

| | | Top Plungers — Plain | Top Plungers — Roller | Top Plungers — Adjustable | Side Plungers — Plain | Side Plungers — Roller | Side Plungers — Adjustable | Maintained (Circuitry Shown Above) |
|---|---|---|---|---|---|---|---|---|
| Pretravel (in. max.) | mm<br>(in.) | 1,78<br>.070 | 1,78<br>.070 | 1,78<br>.070 | 2,54<br>.100 | 2,54<br>.100 | 2,54<br>.100 | 4,32<br>.170 |
| Differential Travel (in. max.) | SPDT<br>mm<br>(in.) | 0,38<br>.015 | 0,38<br>.015 | 0,38<br>.015 | 0,64<br>.025 | 0,64<br>.025 | 0,64<br>.025 | 2,29<br>.090 |
| | DPDT<br>mm<br>(in.) | 0,51<br>.020 | 0,51<br>.020 | 0,51<br>.020 | 0,89<br>.035 | 0,89<br>.035 | 0,89<br>.035 | 2,29<br>.090 |
| Overtravel (in. min.) | mm<br>(in.) | 4,83<br>.190 | 4,83<br>.190 | 4,83<br>.190 | 4,83<br>.190 | 4,83<br>.190 | 4,83<br>.190 | 2,0<br>.080 |
| Operating Force (lb. max.) | Newton<br>(lb.) | 17,8<br>4 | 17,8<br>4 | 17,8<br>4 | 26,7<br>6 | 26,7<br>6 | 26,7<br>6 | 44,5<br>10 |
| Operating Point | mm<br>(in.) | 45,8 ±0,76<br>1.805 ±.030 | 55,9 ±1,02<br>2.200 ±.040 | 53,0 to 59,3<br>2.085 to 2.335 | 33,0 ±0,76<br>1.300 ±.030 | 44,1 ±1,02<br>1.735 ±.040 | 41,0 to 47,4<br>1.615 to 1.865 | 37,6 ±0,76<br>1.480 ±.030 |
| Operating Temperature Range | | 10°F to 200°F<br>–12 to 93°C | | 10°F to 200°F<br>–12 to 93°C | | 10°F to 200°F<br>–12 to 93°C | | 30°F to 200°F<br>–1 to 93°C |

# Limit and Enclosed Switches

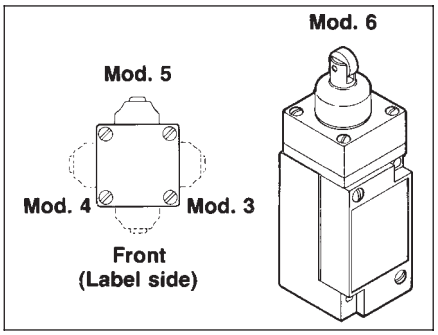
## Plunger Actuated Switches/Assembly Modifications

**ASSEMBLY MODIFICATIONS**

**How to order**
To specify other than the normal assembled conditions described on facing page, add the following modification numbers to the catalog listing in the plunger switch order guide.

**Mod.**
**3** Side plunger to right of switch front
**4** Side plunger to left of switch front
**5** Side plunger to back of switch
**6** Roller on top plungers perpendicular to mounting surface
**7** Light on indicator versions wired to N.C. circuit
**8** Roller on side plungers in vertical position.

Example:
LSF1A3 is an LSF1A with the side roller plunger to the right side.




## Wobble Actuated Switches

Wobble actuated switches have flexible levers which may be operated with any movement, except direct pull.

**ORDER GUIDE**
Momentary action. UL listed, CSA certified

| Catalog listings in this chart are complete switches. | | | Catalog Listings | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| **Lever lengths measured from top mounting hole** | | | **5.5″** | **13″** | **5.5″** | **5.5″** | **5.5″** |
| **Circuitry** | **Elec. Rating Page A34** | **Body** Style** | **Delrin Rod** | **Spring Wire** | **Cat*** Whisker** | **Cable** | **Coil Spring** |
| Silver contacts | A | Plug-in ½″ Conduit | **LSJ1A-7A** | **LSJ1A-7M** | LSK1A-8A | **LSJ1A-7N** | **LSK1A-8C** |
| Gold cross point | C | Plug-in ½″ Conduit | LSJ1J-7A | LSJ1J-7M | LSK1J-8A | LSJ1J-7N | LSK1J-8C |
| Gold plated contacts | C | | — | LSJ1E-7M | — | — | — |
| Silver contacts<br>MOMENTARY<br>SPDT Double Break | A* | 120 V. Ind. Lite Plug-in ½″ Conduit* | LSJ5A-7A | LSJ5A-7M | LSK5A-8A | LSJ5A-7N | LSK5A-8C |
| | A* | 240 V. Ind. Lite Plug-in ½″ Conduit* | LSJ8A-7A | LSJ8A-7M | LSK8A-8A | LSJ8A-7N | LSK8A-8C |
| | A | Non plug-in ½″ Conduit | **LSJ3K-7A** | **LSJ3K-7M** | LSK3K-8A | **LSJ3K-7N** | **LSK3K-8C** |
| Silver contacts | B | Plug-in ¾″ Conduit | LSJ2B-7A | LSJ2B-7M | LSK2B-8A | LSJ2B-7N | LSK2B-8C |
| | B | 120 V Ind. Lite Plug-In ¾″ Conduit | LSJ2R-7A | LSJ2R-7M | LSK2R-8A | LSJ2R-7N | LSK2R-8C |
| MOMENTARY | B | Plug-in ½″ Conduit | LSJ6B-7A | LSJ6B-7M | LSK6B-8A | LSJ6B-7N | LSK6B-8C |
| | B | Non plug-in ¾″ Conduit | LSJ4L-7A | LSJ4L-7M | LSK4L-8A | LSJ4L-7N | LSK4L-8C |
| DPDT Double Break | B | Non plug-in ½″ Conduit | LSJ7L-7A | LSJ7L-7M | LSK7L-8A | LSJ7L-7N | LSK7L-8C |

**OPERATING CHARACTERISTICS**

| | | | | | |
|---|---|---|---|---|---|
| mm<br>Pretravel (approx. in. radius) | 25,4<br>1 | 102<br>4 | 51<br>2 | 38<br>1.5 | 51<br>2 |
| Newton<br>Operating Force (oz. max.) | 2,78<br>10 | 1,39<br>5 | 1,39<br>5 | 1,95<br>7 | 1,95<br>7 |
| Operating Temperature Range | 10°F to 200°F 12 to 93°C | | | | |

* Use at voltage indicated for light. Upper operating temperature limit for lighted units is 200°F.

** Plug-in listings include base receptacle.

*** These cat whiskers have 5½ inch long levers. To specify 7½ inch length, substitute **-8B** for **-8A**.

LifeElectronics
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